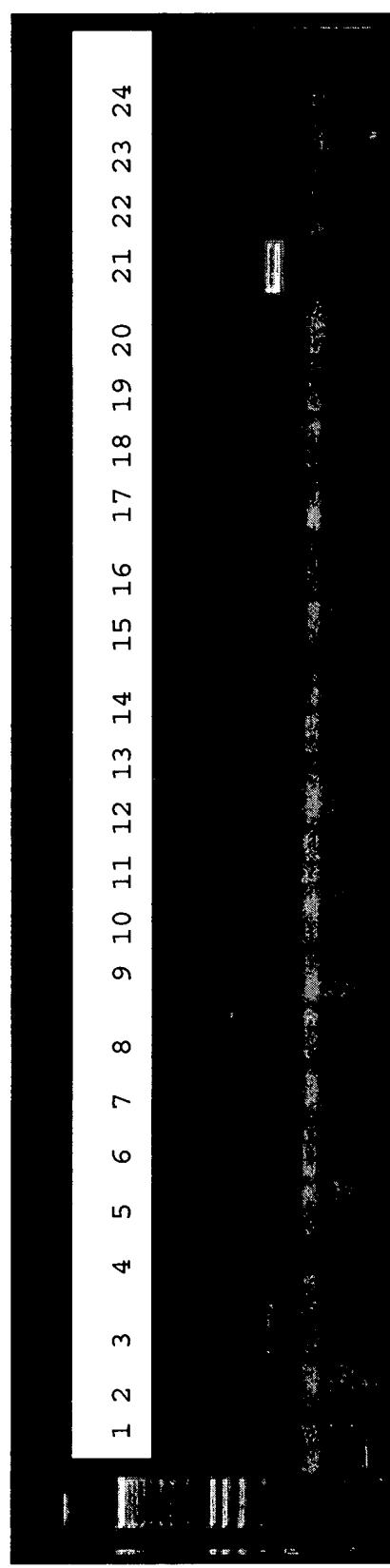


Figure 1



|       |   |       |
|-------|---|-------|
| Mouse | MGGCEVREFLLOQGFFLPLLTAWTGDCSHVSN-QVVLDDTTVMGELGWKTYPLNGDAI    | 59    |
| Human | MGGCEVREFLLOQGFFLPLLTAWPGDCSHVSNQVVLDDTTVLGELGWKTYPLNGDAI     | 60    |
|       | *****   | ***** |
| Mouse | TEMDEHNRPIHTYQVCNVMEPNQNNWLRTNWISRDAAQKIVYVEMKFTLRDCNSIPWVLGT | 119   |
| Human | TEMDEHNRPIHTYQVCNVMEPNQNNWLRTNWISRDAAQKIVYVEMKFTLRDCNSIPWVLGT | 120   |
|       | *****   | ***** |
| Mouse | CKETFNLYYIESDESHGTFKPKPSQYKIDTIAADESFTQMDLGDRILKLNTIEREVGPIE  | 179   |
| Human | CKETFNLFYMESDESHGIFKPKPNQYTKIDTIAADESFTQMDLGDRILKLNTIEREVGPIE | 180   |
|       | *****   | ***** |
| Mouse | RKGFYLAQDQDIGACIALVSVRVFYKKCPFTVRLAMFPDTIPRVDSSLVEVRGSCVKSA   | 239   |
| Human | RKGFYLAQDQDIGACIALVSVRVFYKKCPFTVRLAMFPDTIPRVDSSLVEVRGSCVKSA   | 240   |
|       | *****   | ***** |
| Mouse | EERDTPKLYCGADGDWLVLGRCICSTGYEEIEGSCHACRPGFYKAFAGNTKCSKCPPHS   | 299   |
| Human | EERDTPKLYCGADGDWLVLGRCICSTGYEEIEGSCHACRPGFYKAFAGNTKCSKCPPHS   | 300   |
|       | *****   | ***** |
| Mouse | STYVEATSVCHCEKGYFRAEKDPPSMACTRPPSAPRNVAFNINETALILEWSPPSDTGGR  | 359   |
| Human | LTYMEATSVQCCEKGYFRAEKDPPSMACTRPPSAPRNVVFNINETALILEWSPPSDTGGR  | 360   |
|       | *****   | ***** |
| Mouse | KDLTYSVICKKCGLDTQCEDCGGLRFIPRHTGLINNSVVVLDFVSHVNYTFEIEAMNG    | 419   |
| Human | KDLTYSVICKKCGLDTQCEDCGGLRFIPRHTGLINNSVIVLDFVSHVNYTFEIEAMNG    | 420   |
|       | *****   | ***** |
| Mouse | VSELSISPKPFTAIVTVDHDAPSILGMMRKDWASQNSLALSQAPAFSNGAILDYETKY    | 479   |
| Human | VSELSFSPKPFTAIVTVDQDAPSILGIVRKDWASQNSIALSQAPAFSNGAILDYEIKY    | 480   |
|       | *****   | ***** |
| Mouse | YEKEHEQLTYSSTRSKAPSIVTGLKPATTYIFHIRVRTATGYSGYSQKFEFETGDETSD   | 539   |
| Human | YEKEHEQLTYSSTRSKAPSVIITGLKPATKVFHIRVRTATGYSGYSQKFEFETGDETSD   | 540   |
|       | *****   | ***** |
| Mouse | MAAEQGQILVIATAAVGGFTLLVILTLFLITGRCQWYIKAKMKSEEKRRTHLQNGHLRF   | 599   |
| Human | MAAEQGQILVIATAAVGGFTLLVILTLFLITGRCQWYIKAKMKSEEKRRNLQNGHLRF    | 600   |
|       | *****   | ***** |
| Mouse | PGIKTYIDPDTYEDPSLAVHEFAKEIDPSRIRIERVIGAGEFGEVCSGRLKTPGKREIPV  | 659   |
| Human | PGIKTYIDPDTYEDPSLAVHEFAKEIDPSRIRIERVIGAGEFGEVCSGRLKTPGKREIPV  | 660   |
|       | *****   | ***** |
| Mouse | AIKTLKGHHMDRQRDFLREASIMQFDHPNIIRLEGVVTKRSFPAIGVEAFCPSFLRAG    | 719   |
| Human | AIKTLKGHHMDRQRDFLREASIMQFDHPNIIRLEGVVTKRSFPAIGVEAFCPSFLRAG    | 720   |
|       | *****   | ***** |
| Mouse | FLNGIQAPHVTAGGSLPPRIPAGRPMIVVEMENGLSDSFLRKHDGHFTVIQLVGLMR     | 779   |
| Human | FLNSIQAPHVPVGGSLLPPRIPAGRPMIVVEMENGLSDSFLRKHDGHFTVIQLVGLMR    | 780   |
|       | *****   | ***** |
| Mouse | GIASGMKYLSDMGYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDDPEAAYTTGGKIP    | 839   |
| Human | GIASGMKYLSDMGYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDDPEAAYTTGGKIP    | 840   |
|       | *****   | ***** |
| Mouse | RWTAPEAIAYRKFSSASDAWSYGIVMWEVMSYGERPYWEMSNQDVILSIEEGYRLPAPMG  | 899   |
| Human | RWTAPEAIAYRKFSSASDAWSYGIVMWEVMSYGERPYWEMSNQDVILSIEEGYRLPAPMG  | 900   |
|       | *****   | ***** |
| Mouse | CPPSLQQLMLHCWQKERNHRPKFTDIVSFLDKLIRNPSPALHTLVEDILVMPESPGLVPEY | 959   |
| Human | CPASLHQLMLHCWQKERNHRPKFTDIVSFLDKLIRNPSPALHTLVEDILVMPESPGLVPEY | 960   |
|       | *****   | ***** |
| Mouse | PLFVTVGDWLDSIKMGQYKNSFMAAGFTTFDLISRMSIDDIRIGVILIGHQRIVSSIQ    | 1019  |
| Human | PLFVTVGDWLDSIKMGQYKNNFVAAGFTTFDLISRMSIDDIRIGVILIGHQRIVSSIQ    | 1020  |
|       | *****   | ***** |
| Mouse | TLRLHMMHIQEKGFHV 1035   |       |
| Human | TLRLHMMHIQEKGFHV 1036   |       |
|       | *****   | ***** |

FIGURE 2

### Figure 3

Human: 3    aggacccccatccatcccagaacacccgcctgcgtgcgcacttcttttaaggaga 62  
  ||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 205    aggacccccacgctacttaggaacacccgtggctgcgtgcgcacttcttttaagg---a 261

Human: 63    ggaaaagagagcctaggagaaccatgggggctgcgaagtccggaaatttctttgcaat 122  
  ||||| ||||| ||| | ||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 262    ggagaagagaaccaaccagagccatgggggctgcgaagtccggaaatttctttgcaat 321

Human: 123    ttggtttcttctgcctctgtgcacagcgtggccaggcgactgcagtacgtctccaaca 182  
  ||||||| ||||| ||||| ||| ||| ||| ||| ||||| ||||| ||||| |||||  
Mouse: 322    ttggtttcttctgcctctgtgcacggcttggaccggcgactgcagtacgtctccaac- 380

Human: 183    accaagtgtgttgcataacaacaactgtactggagagctaggatggaaaacatatac 242  
  ||||||| ||||| ||||| ||||| ||| ||| ||| ||| ||||| ||||| |||||  
Mouse: 381    --caagtgtgttgcataacaaccacagtgtggagaaactaggatggaaaacatatac 438

Human: 243    cattaaatgggtggatgccatcactgaaatggatgaacataataggcccattcacat 302  
  ||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||| |||||  
Mouse: 439    cattaaatgggtggatgccattactgaaatggatgaacacaataggcccatacacat 498

Human: 303    accaggtatgtaatgtaatggaaaccaaaccacactggcttcgtacaactggatct 362  
  ||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 499    accaggtatgtcatggaaaccaaaccagaacaactggcttcgtactaactggatct 558

Human: 363    cccgtgatgcagctcagaaaatttatgtggaaatgaaattcacactaaggattgtaca 422  
  | ||||| ||| ||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 559    ctcgtgatgctgcacagaaaatttatgtggaaatgaaatgttcacactgaggattgtaca 618

Human: 423    gcatcccatgggtcttgggacttgcacaaaacattaatgttttatatggatcag 482  
  ||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 619    gcatcccatgggtcttgggacttgcacaaaacatttacactgttttatatggatcag 678

Human: 483    atgagtccacggaaattaaattcaagccaaaccagtatacaaaagatcgacacaattgctg 542  
  ||||| ||||| ||| | ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 679    atgaatccatggacaaaattcaagccaaacatataaaagatcgacacaattgctg 738

Human: 543    ctgatgagatttacccagatggatttgggtatcgcatcctcaaactcaacactgaaa 602  
  ||||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 739    ctgatgagatttactcagatggatttgggtacccatcctttaactcaacactgaaa 798

Human: 603    ttcgtgagggtgggcctatagaaaggaaaggattttatctggctttcaagacattgggg 662  
  | ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 799    tccgtgagggtgggcctatagaaaggaaaggattttatggctttcaagatattggag 858

Human: 663    cgtgcattgcctgggttcagtcgtgtttctacaagaaaatgccttcactgttcgta 722  
  | ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||| |||  
Mouse: 859    catgcacatcgctggcttcagtcgtttctacaaaaaatgccttcaccgtcgga 918

Human: 723    acttggccatgttccgtataccatccaagggttattccctctttgggtgaagtac 782  
  ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 919    gcttggctatgttccgtataccatcccaagggttattccctctttgggtgaagtgc 978

Human: 783    ggggttcttgtgaagagtgcataccatccaagggttattccctctttgggtgaagtgc 842  
  ||||| ||| ||||| ||||| ||||| ||| ||||| ||||| ||| |||||  
Mouse: 979    ggggctcatgtgtaaagagtgcataccatcccaagggttattccctctttgggtgaagtgc 1038

Human: 843 atggagattggctggtccttggaaaggcatctgcagtagcaggatataaaggaaatgg 902  
||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1039 atgggattggcttgccttggaaaggatctgcagtagcaggatataaaggaaatgg 1098

Human: 903 agggttcttgcctgcatgcggattctataaaggctttgtggaaacacaaaat 962  
||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1099 agggttcttgcctgcatgcggattctataaaggatctgcggaaacacaaaat 1158

Human: 963 gttctaaatgtcctccacacagttAACATGGAAGCAACTCTGTCTGTAGTGTG 1022  
||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1159 gttccaaatgcctccacacagctAACCTACGTGGAAAGCAACGTCAGTCTGTATTGTG 1218

Human: 1023 aaaagggttatttccggactgaaaaagacccacccatggatggcatgtaccaggccacctt 1082  
||||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1219 aaaagggttattccggcggaaaaagacccacccatggatggcatgcactagaccacctt 1278

Human: 1083 cagctccttaggaatgtggtttaacatcaatgaaacagcccttatttggatggagcc 1142  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1279 cagctccttagaaatgtggtttaacatcaatgaaacagcccttatttggatggagcc 1338

Human: 1143 caccaagtgacacaggagggaaaaagatctcacatacagtgtaatctgtaaatgtg 1202  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1339 cacccagtgacacaggagggaaaaagatctcacatacagtgtaatctgtaaatgtg 1398

Human: 1203 gcttagacaccagccaggactgtgaggactgtggggaggactccgcttcatccaaagacata 1262  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1399 gtttagacactaccaggactgtgaggactgtggggaggactccgcttcatccaaagacata 1458

Human: 1263 caggcctgatcaacaattccgtgatagtacttgactttgtctcacgtgaattacacct 1322  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1459 ctggactgatcaacaattctgtggtagtactggactttgtctcacgtcaattataacct 1518

Human: 1323 ttgaaatagaagcaatgaatggagttctgagttgagttttctccaaaggcattcaca 1382  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1519 ttgaaatagaagccatgaatggagttctgagttgagcatctccaaaggcattcaca 1578

Human: 1383 ctattacagtgaccacggatcaagatgcaccccttgcataagggtggtaaggaaaggact 1442  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1579 ctattacagtgactacagatcacatgcaccccttgcattttgtatgatgagaaggact 1638

Human: 1443 gggcatccaaaatagcattgccttatcatggcaagcaccgtttttccaaatggagcc 1502  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1639 gggcatctcagaacacgccttgcattatcggtggcaagcacctgcattttccaaatggagcc 1698

Human: 1503 ttctggactacgagatcaagtactatgagaaacatgagcagctgacactttcca 1562  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1699 ttctggactatgagaccaagtactacgagaaagagcatgagcagctcaccttccatcca 1758

Human: 1563 caaggccaaaggccccagggtcatcatcacaggcttaagccaggccaccaatatgtat 1622  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1759 cgagggtccaaaggccccagggtcatcgacggccatcgatggccacccat 1818

Human: 1623 ttcacatccgagtgagaactgcgacaggatacgtggctacagtcaaggatggat 1682  
||||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1819 ttcacatccgagtgaggacggcgcaggctacgtggctacagtcaaggatggat 1878

Human: 1683 aaacaggagatgaaacttgcacatggcaggcagaacaaggacaggatctcgatagcc 1742  
||||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 1879 aaacaggagatgaaacttgcacatggcggcagaacaaggcaggatctggcatagcc 1938





Human: 3483 gggaaagtgttacggacttaacctaaaaaatttatcc--aggtggggcttccttagtga 3540  
||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Mouse: 3678 gggaaagtgttcatggacttcacctaaggaaattgtcctaagtgtggcatcttcagaga 3737

Human: 3541 tttatgttagagtgtatggtagatgagaaagaacttagttgacccctttatgtttgt 3600  
||| ||| ||||| ||||| ||||| ||||| ||| ||| ||| ||| ||||| ||||| |||||  
Mouse: 3738 cgtgtgtggagttttagatgatagataagaagaaaatagctgatcattttccatgtttgt 3797

Human: 3601 gatcaagtagct 3612  
||||| |||||||  
Mouse: 3798 gatcgagtagct 3809

**Figure 4**

|                     |  |
|---------------------|--|
| KSE132<br>XM_035574 | MGGCEVREFLLQFGFFLPLLTAWPGDCSHVSNNQVLLDTTVLGEGLWKTYPLNGWDAI 60    |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | TEMDEHNRPIHTYQVCNVMEPNQNNWLRTNWISRDAAQKIYVEMKFTLRDCNSIPWVLGT 120 |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | CKETFNLFYMESDESHGIKFKNQYTKIDTIAADESFTQMDLGDRILKLNTEIREVGPIE 180  |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | RKGFYLAQDQDIGACIALVSRVVFYKKCPFTVRNLAMFPDTIPRVDSSLVEVRGSCVKSA 240 |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | EERDTPKLYCGADGDWLVPLGRICSTGYEEIEGSCHACRPGFYKAFAGNTKCSKCPPHS 300  |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | LTYMEATSVCQCEKGYFRAEKDPPSMACTRPPSAPRNVVFNINETALILEWSPPSDTGGR 360 |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | KDLTYSVICKKCGLDTSQCEDCGGLRFIPRHTGLINNSIVLDFVSHVNYTFEIEAMNG 420   |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | VSELSFSPKPFTAIVTDDQDAPSILGVVRKDWAQSNSIALSWQAPAFSNGAILDYEIKY 480  |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | YEKEHEQLTYSSTRSKAPSVIITGLKPATKYVHIRVRTATGYSYSQKFEFETGDETSD 540   |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | MAAEQGQILVIATAAVGGFTLLVILTLFLITGRQCQWYIKAKMKSEEKRRNHLQNGHLRF 600 |
| KSE132<br>XM_035574 | MAAEQGQILVIATAAVGGFTLLVILTLFLITGRQCQWYIKAKMKSEEKRRNHLQNGHLRF 86  |
| KSE132<br>XM_035574 | *****  |
| KSE132<br>XM_035574 | PGIKTYIDPDTYEDPSLAVHEFAKEIDPSRIRIERVIGAGEFGEVCSGRLKTPGKREIPV 660 |
| KSE132<br>XM_035574 | PGIKTYIDPDTYEDPSLAVHEFAKEIDPSRIRIERVIGAGEFGEVCSGRLKTPGKREIPV 146 |
| KSE132<br>XM_035574 | *****  |
| KSE132<br>XM_035574 | AIKTLKGHHMDRQRDRFLREASIMQFDHPNIIRLEGVVTKRSFPAIGVEAFCPSFLRAG 720  |
| KSE132<br>XM_035574 | AIKTLKGHHMDRQRDRFLREASIMQFDHPNIIRLEGVVTKRSFPAIGVEAFCPSFLRAG 206  |
| KSE132<br>XM_035574 | *****  |
| KSE132<br>XM_035574 | FLNSIQAPHVPVGGSLLPPRIPAGRPMIVVEYMEMGSLDSFLRKHDGHFTVIQLVGLMR 780  |
| KSE132<br>XM_035574 | FLNSIQAPHVPVGGSLLPPRIPAGRPMIVVEYMEMGSLDSFLRKHDGHFTVIQLVGLMR 266  |
| KSE132<br>XM_035574 | *****  |
| KSE132<br>XM_035574 | GIASGMKYLSDMGYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDDPEAAYTTGGKIPI 840  |
| KSE132<br>XM_035574 | GIASGMKYLSDMGYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDDPEAAYTTD----- 321  |
| KSE132<br>XM_035574 | *****  |
| KSE132<br>XM_035574 | RWTAPEAIAYRKFSSASDAWSYGYIVMWEVMSYGERPYWEMSNDVILSIEEGYRLPAPMG 900 |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | LFQTLTLNLCYSA----- 334   |
| KSE132<br>XM_035574 | *.. : .*   |
| KSE132<br>XM_035574 | CPASLHQMLHWCWQKERNHRPKFTDIVSFLDKLIRNPSALHTLVEDILVMPESPGEVPEY 960 |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | PLFVTVGDWLDISIKMGQYKNNFVAAGFTFDLISRMSIDDIRIGVILIGHQRIVSSIQ 1020  |
| KSE132<br>XM_035574 | -----  |
| KSE132<br>XM_035574 | TLRLHMMHIQEKGFHV 1036  |
| KSE132<br>XM_035574 | -----  |